REMARKS

1. The Office noted that the previously filed claims set included non-elected claims which were not identified as cancelled.

The applicants submit herewith a claim set in which all non-elected claims are described as cancelled. In view of this change, the applicants respectfully request that this objection be withdrawn.

Independent claims 1, and 74 are currently amended in this response and marked accordingly. Dependent claim 20 has been amended to comport with claim 1 from which it depends. Support for these amendments can be found throughout the application.

2 and 3. Claims 1, 4-10, 13-16, 18-24, 26-29 and 74 were rejected under 35 USC §112, 1st paragraph

The applicants respectfully disagree with this characterization of the claims as including new matter, for the following reasons. The independent claims were previously amended to include the phrase "maintaining an even and continuous flow of said reaction mixture" (i.e. claims 1 and 74) support for the use of this phrase in the claims can be found throughout the specification as filed. Literal support for this term can be found in paragraph [0153] of the specification which reads as follows, *"Thus, employing the apparatuses and methods taught herein, it is now possible to maintain an even and continuous outlet and flow (*of the reaction mixture*) to the decanter..."*(emphasis added). Even though the reaction mixture is not mentioned directly it would be clear to one of ordinary skill in the art from to the context of the disclosure and what was known in the art at the time that is application was filed that the reaction mixture in contact with the inventive apparatus would have an even and continuous flow. Accordingly, the amended claims are supported by the written description of the specification as filed and the applicants request that in consideration of these remarks that this rejection be

withdrawn. Action to that end is respectfully requested.

4 and 5. Claims 1, 4-7, 14, 21, 22 and 74 were rejected under 35 USC § 102(b) as being anticipated by Fuentevilla US Patent No. 4, 212,889.

The applicants respectfully disagree with this characterization of the claims for the following reasons and for reasons further developed in the applicants' response to paragraphs 6 through 10 of the Action. In order to support an anticipation rejection a primary references must recited each and every element of an anticipated claim. Fuentevilla does not meet this burden with respect to either the pending claims or to the currently amended claims field herewith. For example, applicants' claim 1 recites, "a hydrolysis area, that provides hydrolysis of said raw material by reacting a reaction mixture comprising said raw material and at least one enzyme present in said area wherein said reaction mixture contains both solids and liquid and wherein upon hydrolysis said reaction mixture further comprises hydrolysis product…". Pending claim 1. In contrast Fuentevilla discloses a system that must comprise a series of at least 2 interconnected hydrolylizing vessels (reactors) with the further requirement that there be at least one pump to transfer the contents of the vessels between one another. See Fuentevilla, column 3, lines 36-39; and Fig. 1A. Accordingly, there is nothing in Fuentevilla equivalent to the applicants claimed invention.

Applicants' pending claim 1 further recites, "… an inactivation area that receives the reaction mixture from the hydrolysis area and substantially inactivates said at least one enzyme present in the reaction mixture …." Pending claim 1. In contrast Fuentevilla neither discloses not implies an inactivation area with substantially inactivates at least one enzyme in the reaction mixture.

Applicants' pending claim 1 further recites, "a separation area separately located from the inactivation area that receives at least one portion of the reaction mixture from the inactivation area and is capable of

separating it into two or more compounds, including at least one substantially liquid component which comprises water soluble protein and including at least one substantially solid compound wherein the hydrolysis area and inactivation area and separating area operate in a continuous non-batch mode … " Pending claim 1. In contrast, Fuentevilla teaches the introduction of raw material to the hydrolysis area and discharge from the last vessel of the digester is done batch-wise. See Fuentevilla, e. g. column 5, line 22-25; column 6, line 6-17, line 26-27 and line 55-60).

Currently amended claim 1, reads as follows, " wherein the hydrolysis area and inactivation area and separating area operate in a continuous non-batch mode for at least 3 days without interruption … " Currently Amended Claims 1 and 74. In contrast, Feuntevilla teaches that the introduction of raw material to the hydrolysis area and discharge from the last vessel of the digester is done batch-wise (see column 5, line 22-25; column 6, line 6-17, line 26-27 and line 55-60). And the only example in Fuentevilla, teaches that the process described in Feuntevilla must be shut down for cleaning after 30 hours. See Feuntevilla, (column 7, lines 3-6 and 8-10.). Again in conformity with the fundamental differences between the applicants' claimed invention and the disclosure of Fuentevilla this references does not recite, nor make obvious, the applicants' claimed invention.

In summary, Fuentevilla fails to disclose:

- an apparatus wherein the raw material can be continuously added and processed in a hydrolyzing area;

- a system that can operate in a non-batch mode for at least 3 days without interruption and without required shutdown for scheduled maintenance or cleaning actions;

- a system that can be operated with an even and continuous flow through the whole process and process period and that maintains a level of emulsification is at or below 10 %

Accordingly, in view of the amendments made to the claims and to the remarks provided herein the Applicants respectfully request that the rejection of pending claims be withdrawn and that all pending claims be found in condition for allowance. Applicants further note that the arguments that apply to currently amended claim 1 also apply to currently amended claim 74.

6 and 7. Pending claims 8, 18, 20, 23, 24 and 26-29 were rejected under 35 USC § 103(b) as being obvious in view of Fuentevilla.

6 and 8. Pending claims 13 and 15 were rejected under 35 USC § 103(b) as being obvious over Fuentevilla in view of DE 2526879.

6 and 9. Pending claims 9 and 10 were rejected under 35 USC § 103(b) as being obvious over Fuentevilla in view of DE 2526879 taken together with FR 2352498.

6 and 10. Pending claims 16 and 19 were rejected under 35 USC § 103(b) as being obvious over Fuentevilla taken together with DE 2526879 and either MacKenzie or Eweson.

The applicants respectfully disagree with Action's characterization of the claims as being obvious over any of the art cited by Office considered either individually or in view of any combination of them when fairly read in the context of what was known in the art at the time that present application was filed. The Action implies that the system disclosed of Fuentevilla is capable of being operated in the same way as is the system recited in the applicants' claim 1 (or claim 74), this not correct. The system described and inferred in Fuentevilla is built on a series of interconnected vessels which are placed after each other, such that additional fish can be introduced batch-wise into the system during discharge of the product. Fuentevilla further teaches a process using variable speeds and directions of flows between and within the vessels. This

teaching in Fuentevilla is necessary to the operation of the system taught by Fuentevilla because the apparatus taught in Feuntevilla is not capable of operating in a truly continuous manner. The processes disclosed in Fuentevilla, even in view of the other references cited, fail to disclose the advantageous apparatus and process of the applicants' claimed invention. Large-scale processing of fish cannot be carried out in an even and continuous mode throughout the entire system disclosed in Fuentevilla. Despite some of the language used in Fuentevilla, this Fuentevilla only discloses what is essentially a batch process carried out in a series of interconnected vessels.

The transfer of the reaction mixture between vessels taught in Fuentevilla is coordinated by pumps which pump both forwards and backwards with variable speeds and in accordance with signals generated by level indicators located within the vessels. In the system taught by Fuentevilla, this is the only in this way to control the filling of and avoid the possible overfilling of the digester vessels disclosed in Fuentevilla. Fuentevilla teaches the use of at least 2 reactors in the hydrolyzing area (digester) as necessary for processing different batches of raw material. At least two tanks are required at this stage of the process because the raw material in Fuentevilla is processed serially and in the hydrolyzing area of the system the only way to process more than one batch of material at a time is to use at least two vessels so that batches of raw material can subsequently be introduced into at least one of the vessels while the hydrolysed product is discharged from the last vessel in the inactivation area of the system taught by Fuentevilla.

In contrast, the applicants' claimed invention operates with only one hydrolysing unit and is able to continuously receive the raw material. See e.g., application, paragraph [0081]. If several units of the applicants claimed invention are used concurrently, for example, in order to increase the capacity of the system, they are often placed in parallel with one another because each unit is a system that is operated continuously to produce product. See id., paragraph [0082]. The reaction mixture in the applicants' claimed

invention is usually conveyed by transport means which operate in an continuous mode such as by feeder screw, conveyor screws, belts or the like which can agitate and transport the mixture gently and continuously through the system and not by pumps that must be variably controlled to simulate continuous flow through an essentially batch wise process as is taught by Fuentevilla. Because the hydrolysis area disclosed in Fuentevilla does not operate in a non-batch mode for at least 3 days as does the truly continuous system claimed by the applicants, but instead only provides the option of hydrolysing several batches in a series of interconnected vessels the applicants' claimed invention is not obvious in view of Fuentevilla and the other art referenced by the Office.

Fuentevilla discloses an apparatus that can run be operated for 30 hours before it is shut down. In order to operate the apparatus disclosed in Fuentevilla for periods of the time longer than 30 hours the process disclosed in Fuentevilla has to be stopped and cleaned or additional vessels have to be added to the system to allow for shunting of the material to these additional vessels while the primary vessels of the apparatus are cleaned. An apparatus designed to and capable of being operated on a routine basis of a period of at least 3 days without replacing/cleaning as claimed by the applicants is neither mentioned nor made obvious by the disclosure of Fuentevilla. If anything Fuentevilla teaches away from the use of the apparatus for more than 30 hours by saying that the system must either be cleaned or shunting vessels have to be used. One of ordinary skill in the art with knowledge of Fuentevilla would therefore not find it obvious that the present invention can be operated without maintenance for longer periods than Fuentevilla or that the system can run in a non-batch mode for 3 days or more.

Accordingly the ability to continuously operate the process of the applicants claimed invention for at least 3 days in a non- batch mode clearly distinguishes currently amended claims 1 and 74 from what is taught in Fuentevilla and Fuentevilla in view of the supporting references cited by the Office.

Still another feature of Fuentevilla which serves to illustrate the fundamental differences between prior art systems and the applicant claimed invention is that the apparatus disclosed in Fuentevilla must be operated with variable speed pumps. These types of pumps are required in order to enable the timely discharge and transfer of products between different vessels and areas of the apparatus disclosed in Fuentevilla. Fuentevilla teaches using agitators with different capabilities in different vessels in the essentially batch wise process disclosed in Fuentevilla. See e.g. Fuentevilla, column 6, line 64- column 7, line 2). In contrast the apparatus taught by the applicants uses gentle mixing and means of conveying the material in the process in order to avoid emulsifying the material in process. Fuentevilla discloses a bi-directional processing (feed forward, feed backward) as a part of operating the system in disclosed Fuentevilla as necessary to avoid overfilling when processing a given batch of material. In contrast the applicants have identified the need for altered speeds and directions as taught by Fuentevilla as a major problem in systems such as Fuentevilla because these changes in agitator and pump speeds as well as in directions of flow increases emulsification, material sheering and heating and results in a less uniform and better tasting product. These drawbacks to the process taught by Fuentevilla and the other art cited were is not even indentified in these references let alone addressed by them as they were by the applicants, invention. Accordingly, one of ordinary skill in art in possession of the apparatus disclosed in Fuentevilla and what was otherwise known in the art as exemplified by the other references cited in the Action and without the teachings of the applicants disclosure would not have arrived at the applicants' claimed invention.

Finally, the applicants respectfully disagree with the Action's assertion that the size of the vessel used as the digester in Fuentevilla will preclude emulsification. Emulsions can form in virtually any size of vessel. Factors contributing to emulsification include over agitation and mixing including mixing during transfer of liquids, harsh shear forces and the like. See Instant Application, [0037]. And problems

due to unwanted emulsification can occur even in the large volumes vessels use in the large-scale processing of fish.

11. The Action took notice of the applicants earlier filed arguments.

Applicants respectfully request reconsideration of the preciously filed argument in view of amendment currently made to the claims and to the remarks provided herein.

Conclusion and Request for Action.

In consideration of the amendments made to independent claims 1 and 74 and of the remarks provided herein and in previous responses filed with the Office the Applicants believe that the independent claims provided herein are in condition for allowance. Because all of the independent claims of the application are now in condition for allowance the claims that depend from them must necessarily be in condition for allowance. Accordingly the applicants believe that all of the pending and currently amended claims are now in condition for allowance. Applicants respectfully request that all objections and rejections of claims 1, 4-10, 13-16, 18-24, 26-29 and 74 be withdrawn and these claims be allowed. Action to that end is respectfully requested.

If there are any issues that the Examiner believes can be more efficiently addressed telephonically than by written correspondence the Examiner is invited to contact the undersigned at any time to discuss this application.

In the event Applicants have overlooked the need for an extension of time, and/or the payment of additional fees, Applicants hereby petition therefore and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels LLP, but not to include the payment of any issue fees.

Respectfully submitted,

/John J. Emaulele, Jr./
John J. Emanuele, Jr.
Registration No. 51,653

Attorney for Applicants

Date Submitted: October 1, 2010

JJE:ksg

BAKER & DANIELS LLP
300 North Meridian Street
Suite 2700
Indianapolis, Indiana 46204
Telephone: 317-237-0300
Facsimile: 317-237-1000